AMENDMENT NO. 2 AUGUST 2017
TO
IS 15139 : 2002 AUTOMOTIVE VEHICLES — SAFETY BELT ANCHORAGES — SPECIFICATION

(*Page* 1, *clause* **1.2**) — Substitute the following for the existing clause:

'**1.2** This standard applies to the anchorages of safety belts for adult occupants of forward-facing or rearward facing seats in vehicles of categories M, N and L7 category as defined in AIS-053.

(*Page* 1, *clause* **2.1**) — Substitute the following for the existing clause:

'**2.1** The following standards contain provisions which through reference in this text, constitute provision of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below:

IS No.	*Title*
13749 : 2009	Automotive vehicles— Procedure for determining the 'H' point and the torso angle for 50th percentile adult male in seating positions of motor vehicles (*first revision*)
AIS 053 : 2005	Automotive vehicles — Types — Terminology

(*Page* 3, *clause* **4.3.1**) — Substitute the following for the existing clause:

'**4.3.1** For the front seats of vehicles in categories M, N and L7, two lower belt anchorages and one upper belt anchorage shall be provided. However, for front central seats, two lower belt anchorages shall be considered sufficient where the wind screen is located outside the reference zone defined in **3.27**. As regards the belt anchorages, the windscreen is considered to be a part of the reference zone, if it is capable of entering into contact with the test apparatus according to the method described in **3.27**.'

(*Page* 3, *clause* **4.3.2**) — Substitute the following for the existing clause:

'**4.3.2** For outboard seating positions, other than front, of vehicles of categories M1 and L7 two lower anchorages are allowed, where there exists a passage between a seat and the nearest side-wall of the vehicle intended to permit access of passengers to other parts of the vehicle. A space between a seat and the side-wall is considered as a passage if the distance between that side-wall, with all doors closed and a vertical longitudinal plane passing through the centre line of the seat concerned, measured at the R-point position and perpendicular to the median longitudinal plane of the vehicle is more than 500 mm.'

(*Page* 3, *clause* **4.3.4**) — Substitute the following for the existing clause:

'**4.3.4** If seat belts are provided by the vehicle manufacturer as original equipment fitment for the other outboard seats of the vehicle categories M1 and L7, there shall be two lower belt anchorages if only 2-point lap belts are provided and additionally one upper belt anchorage, if 3-point belts are provided.'

(*Page* 3, *clause* **4.3.5**) — Substitute the following for the existing clause:

'**4.3.5**If seat belts are provided by the vehicle manufacturer as original equipment fitment for other seats in vehicle categories M1 and L7 and all other non-protected seats in categories other than M1 and L7 as given in **4.3.1**, there shall be at least two lower belt anchorages.'

(*Page* 3, *clause* **4.4.2.2**) — Substitute the following for the existing clause:

Price Group 2

‘**4.4.2.2** *Front Seats, vehicle categories M1 and L7*

In motor vehicles of categories M1 and L7, the angle α_1 (other than buckle side) shall be within the range of 30° to 80° and the angle α_2 (buckle side) shall be within the range of 45° to 80°. Both angle requirements shall be valid for all normal travelling positions of the front seats, Where at least one of the angles α_1 or α_2 is constant (for example anchorage fixed at the seat) in all normal positions of use, its value shall be 60° ± 10°. In the case of adjustable seats with an adjusting device as described in **3.18** with a seatback angle of less than 20° (*see* Fig. l), the angle α_1 may be below the minimum value (30°) given above, provided it is not less than 20° in any normal position of use.’

(*Page* 5, *clause* **4.4.2.3**) — Substitute the following for the existing clause:

‘**4.4.2.3** *Rear seats, vehicle categories M_1 and L7-M*

In motor vehicles of categories M1 and L7-M, the angles α_1 and α_2 shall be within the range of 30° to 80° for all rear seats. If rear seats are adjustable, the above angles shall be valid for all normal travelling positions.’

(*Page* 5, *clause* **4.4.2.4**) — Substitute the following for the existing clause:

‘**4.4.2.4** *Front Seats, vehicle categories other than M1 and L7*

In motor vehicles of categories other than M1 and L7, the angles α_1 and α_2 must be between 30° and 80° for all normal travelling positions of the front seats. In the case of vehicles having a maximum vehicle mass not exceeding 3.5 *t*, and at least one of the angles α_1 or α_2 is constant in all normal positions of use (for example anchorage fixed at the seat) and its value shall be 60 ± 10°.’

(*Page* 5, *clause* **4.4.2.5**) — Substitute the following for the existing clause:

‘**4.4.2.5** *Rear seats and special front or rear seats, vehicle categories other than M1 and L7*

‘In motor vehicles of categories other than M_1 and L7, in the case of,

a) bench seats;

b) adjustable seats (front and rear) with an adjusting device as described in **3.18** with a seat back angle of less than 20° (*see* Fig. 1); and

c) other rear seats.

Angles α_1 and α_2 may be between 20° and 80° in any normal position of use. Where in the case of the front seats of vehicles having a maximum vehicle mass not exceeding 3.5*t*, at least one of the angles $\alpha_1$or α_2 is constant in all normal position of use (for example, anchorage fixed at the seat), its value shall be 60± 10°.

In case of the seats, other than front seats, of the vehicle category M2 and M3, the angles α_1 and α_2 shall be between 45° and 90° for all normal position of use.’

(*Page* 7, *clause* **5.1.2**) — Substitute the following for the existing clause:

‘**5.1.2** The seats shall be fitted and placed in the position for driving or use chosen by the testing authority to give the most adverse conditions with respect to the strength of the system. The position of the seats shall be stated in the report. The seat-back shall, if its inclination is adjustable, be locked as specified by the manufacturer or, in the absence of any such specification, in a position corresponding to an effective seat-back angle as close as possible to 25° for vehicles of categories M1, N1 and L7 and to 15° for vehicles of all other categories.’

(*Page* 8, *clause* **5.4.1.2**) — Substitute the following for the existing clause:

‘**5.4.1.2** A test load of 1 350 ± 20 daN shall be applied to a traction device (*see* Fig. 3) attached to the belt anchorages of the same belt, by means of a device reproducing the geometry of the upper torso strap of such a safety belt, in the case of vehicles of categories M1 and N1. The test load shall be 675 ± 20 daN for categories M2, N2 and L7 and 450 ± 20 daN for M3 and N3.’

(*Page* 8, *clause* **5.4.1.3**) — Substitute the following for the existing clause:

'**5.4.1.3** At the same time, a tractive force of 1350 ± 20 daN shall be applied to a traction device (*see* Fig. 4) attached to the two lower belt anchorages, in the case of vehicles of categories M1 and N1. The test load shall be 675 ± 20 daN for categories M2, N2 and L7 and 450 ± 20 daN for categories M3 and N3.'

(*Page* 8, *clause* **5.4.2.1**) — Substitute the following for the existing clause:

'**5.4.2.1** A test load of 1 350 ± 20 daN shall be applied to a traction device (*see* Fig. 3) attached to the upper belt anchorage and to the opposite lower belt anchorage of the same belt, using, if supplied by the manufacturer, a retractor fixed at the upper belt anchorage, in the case of vehicles of categories M1 and N1. The test load shall be 675 ± 20 daN for categories M2, N2 and L7 and 450 ± 20 daN for categories M3 and N3.'

(*Page* 8, *clause* **5.4.2.2**) — Substitute the following for the existing clause:

'**5.4.2.2** At the same time a tractive force of 1 350 ± 20 daN shall be applied to a traction device (*see* Fig. 4) attached to the lower belt anchorages in the case of vehicles of categories M1 and N1. The test load shall be 675 ± 20 daN for categories M2, N2 and L7 and 450 ± 20 daN for categories M3 and N3.'

(*Page* 8, *clause* **5.4.3**) — Substitute the following for the existing clause:

'**5.4.3** *Test in Configuration of a Lap Belt*

A test load of 2225 ± 20 daN shall be applied to a traction device (*see* Fig. 3) attached to the two lower belt anchorages in the case of vehicles of categories M1 and N1. The test load shall be 1110 ± 20 daN for categories M2, N2 and L7 and 740 ± 20 daN for categories M3 and N3.'

(*Page* 8, *clause* **5.4.4**) — Substitute the following for the existing clause:

'**5.4.4** *Test for Belt Anchorages located completely within the Seat Structure or Dispersed Between the Vehicle Structure and the Seat Structure*

The tests specified in **5.4.1, 5.4.2** and **5.4.3** shall be performed, as appropriate, at the same time superimposing for each seat and for each group of seats, a force as stated below:

The loads indicated in **5.4.1, 5.4.2** and **5.4.3** shall be supplemented by a force equal to 20 times the mass of the complete seat applied horizontally and longitudinally through the centre of gravity of the seat, in the case of vehicles of categories M1 and N1. The test load shall be equal to 10 times the weight of the complete seat for categories M2, N2 and L7 and 6.6 times the weight of the complete seat for categories M3 and N3.'

5.4.4.1 At the choice of the vehicle manufacturer, the supplementary load can be applied as per any or all of the alternatives described below:

a) Alternatively, if the backrest is an integral part of the seat, the additional load can be applied at the traction device at lap if it can be shown that the line of action of the force passes through or above the centre of gravity of the seat and the horizontal component of this force is equal to the supplementary load specified above.

b) Alternatively, the additional load can also be applied through torso and lap traction devices, equal to the inertia effect of the mass of back rest and seat base, provided that the line of action of the force passes through or above the centre of gravity of the seat base and seat back respectively and the horizontal component of this force is equal to the supplementary load specified above.

c) In the case of a bench seat the additional load can be equally distributed through all the traction devices depending on the number of occupancy of the seat.'

(*Page* 8, *clause* **5.4.5.2**) — Substitute the following for the existing clause:

'**5.4.5.2** At the same time, a tractive force 1 350 ± 20 daN shall be applied to a traction device (*see* Fig. 5) attached to lower belt anchorages, in the case of vehicles of categories M1 and N1. The test load and tractive force shall be 675 ± 20 daN for categories M2, N2 and L7 and 450 ± 20 daN for categories M3 and N3.'

(TED 29)

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